Return

Project Tracking No.: P-004-FY05-IPTV

Return on Investment (ROI) Program Funding Application

This template was built using the ITD ROI Submission Intranet application.
FINAL AUDIT REQUIRED: The Enterprise Quality Assurance Office of the Information Technology Department is required to perform post implementation outcome audits for all Pooled Technology funded projects and may perform audits on other projects.

This is a Pooled Technology Fund Request. Amount of funding requested: $18,000,000.00

Section I: Proposal

Date:	7/29/2003
Agency Name:	Iowa Public Television
Project Name:	Digital Television Conversion
Agency Manager:	William Hayes
Agency Manager Phone Number / E-Mail:	(515)242-3116 / hayes@iptv.org
Executive Sponsor (Agency Director or Designee):	Daniel Miller

D. Statutory or Other Requirements

Is this project or expenditure necessary for compliance with a Federal law, rule, or order?
☑ YES (If "Yes", cite the specific Federal law, rule or order, with a short explanation of how this project is impacted by it.)
Explanation:
The Federal Communications Commission (FCC)has mandated digital television for all over-the-air television stations. The mandate includes a requirement that stations broadcast in digital and analog simultaneously for a period of time. Currently, the federal mandate states that by the end of 2006, or when 85 percent of homes in a viewing area can receive digital television, stations in that area must return one of the two channels to the government for redistribution. This is to make current channels available for other purposes. Although the 2006 deadline is still in place, most industry experts believe both digital and analog options will be required until at least 2010.

Is this project or expenditure required by state law, rule or order?
☑ YES (If "YES", cite the specific state law, rule or order, with a short explanation of how this project is impacted by it.)
Explanation:
According to the Code of Iowa, Section 256.82 "The Iowa public broadcasting board is created to plan, establish and operate educational radio and television facilities and other telecommunications services including narrowcast and broadcast systems to serve the educational needs of the state." If IPTV was restricted to providing service to just a portion of the State of Iowa, IPTV could not fulfill its mission as defined in the Code of Iowa.

Does this project or expenditure meet a health, safety or security requirement?
☐ YES (If "YES", explain.)
Explanation:

Is this project or expenditure necessary for compliance with an enterprise technology standard?
☐ YES (If "YES", cite the specific standard.)
Explanation:

[This section to be scored by application evaluator.]

Evaluation (20 Points Maximum)
If the answer to these criteria is "no," the point value is zero (0). Depending upon how directly a qualifying project or expenditure may relate to a particular requirement (federal mandate, state mandate, health-safety-security issue, or compliance with an enterprise technology standard), or satisfies more than one requirement (e.g. it is mandated by state and federal law and fulfills a health and safety mandate), 1-20 points awarded.

E. Impact on Iowa's Citizens

a. Project Participants

List the project participants (i.e. single agency, multiple agencies, State government enterprise, citizens, associations, or businesses, other levels of government, etc.) and provide commentary concerning the nature of participant involvement. Be sure to specify who and how many **direct** users the system will impact. Also specify whether the system will be of use to other interested parties: who they may be, how many people are estimated, and how they will use the system.
Response:

Commercial broadcasters: Joint private/public partnerships with commercial broadcasters will be made whenever practical. Joint private/public partnerships have been developed in Des Moines, Waterloo and Sioux City. A partnership is being investigated in Mason City as well. The timing of the digital television funding is critical, because by moving along with our commercial partners and sharing facilities, IPTV will save hundreds of thousands of dollars over the course of the transition to digital television.

Cable broadcasters will become partners as they receive our over the air digital signals to broadcast to their customers.

There are many possible partners for the creation of DTV content and services. They include health care providers, government agencies, data providers, educational institutions, news organizations and information providers, business and industry, cultural organizations, libraries, parks and wildlife organizations, and legal and law enforcement.

b. Service Improvements

Summarize the extent to which the project or expenditure improves service to Iowa citizens or within State government. Included would be such items as improving the quality of life, reducing the government hassle factor, providing enhanced services, improving work processes, etc.
Response:

The change to digital television broadcasting will provide Iowans with a spectacular improvement in the video and audio quality of the television they watch. It will also provide Iowa Public Television with unparalled opportunities to provide more services to the one million people who turn to us each week.

Digital television is a part of the conversion of all electronic communications to digital technologies. Digital technology allows us to dramatically increase the quality and quantity of services that are available to consumers without increasing the amount of spectrum needed.

Digital television will allow IPTV the ability to offer multicasting services, broadcasting more than one television channel simultaneously and datacasting services, broadcasting digital media to television sets or computers. The focus of these new services will be to provide targeted programming and interactive content to audiences underserved by commercial broadcasters and cable operators. Digital television will also allow IPTV to deliver educational and program-related content to schools in faster, more secure, and more targeted ways.

The future of electronic communication is digital. IPTV is an integral part of the lives of most Iowans, making digital television key to ITPVs continued growth and leadership.

c. Citizen Impact

Summarize how the project leads to a more informed citizenry, facilitates accountability, and encourages participatory democracy. If this is an extension of another project, what has been the adopted rate of Iowa's citizens or government employees with the preceding project?
Response:

The main stakeholders in this project are children, educators, adult learners and citizens of the State.

DTV technology will allow for more information and expansion of service. Datacasting opportunities will allow us to include additional information about the programming that can be viewed after the program airs. Interactive programs will allow viewers to actively participate in the event. The possibilities for partnership and interaction with IPTV viewers will be outstanding.

High Definition Television is the service that allows Iowa Public Television to broadcast programming that brings movie theater-quality images and concert hall sound clarity to the home. The stunning picture and sound will bring to life much of the programming that is watched at home and will provide viewers with pictures so real viewers will feel like theyre a part of them. These wide-screen presentations provide just one option in a wide array of digital television opportunities.

Another exciting digital television offering is called multicasting. While DTV provides a single broadcast stream, digital technology allows four or more channels of programs within that single stream. This allows IPTV to then expand into four or more channels in the daytime - simultaneously providing programs to meet the needs of preschoolers, seniors and lifelong learners, each with their own channel. Interactive learning tools will be delivered right to the television, giving viewers unlimited educational opportunities and offering students a way to be actively engaged in content. And, while not the same quality as HDTV, which will be televised in the evenings, SDTV still provides vastly superior quality over current analog television.

Digital television allows great leaps forward in our ability to use television to educate students, to better inform all viewers about areas of their interest, and to expand the opportunities of all Iowans to participate in discussion and debate about issues important to their future. Some of the multicast channels that may be offered exclusively on IPTV include:
Childrens Channel - a "safe place" for children filled with preschool and school-aged programming, aired at times when other channels cater to adults with programming not suitable for children.
Prime Times - programming aimed at addressing the specific and unique interests and concerns of Iowa s senior population.
Lifelong Learning Television - a place for formal instructional programming, college credit courses, G.E.D., foreign language (and English as a second language) courses, and repeat telecasts of general audience how-to programming.
All-Iowa TV - programs produced by IPTV and independent television producers in Iowa.
Iowa Public Affairs Television - a place where citizens can get information about their government through coverage of public affairs issues, events and meetings, and state government and legislative sessions and

activities.

Expanded Information: Data transmission will allow viewers to get more information from television programs while viewers are watching. For example, during a program a viwer may be given the opportunity to click a button to receive more detailed information (possibly in text format) on the topic being presented. There may be written materials that are related to the video programming, course-related materials, such as teacher and student guides, and selected portions of the Internet or World Wide Web sent directly to the television set without the need for a computer, telephone connections or an access provider. Enhanced programs such as FRANK LLOYD WRIGHT are being tested now. This will not only enhance the entertainment and educational experience, but also great benefits for telecourses and other adult learning opportunities. In addition, educational content for K-12 students can be transmitted in ways that are not possible in the current television system. For example, learning software for K-12 can be transmitted to computers overnight via IPTVs digital broadcast signal.

IPTV is also exploring the opportunities to use datacasting for homeland security and emergency response.

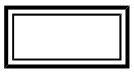
d. Public Health and/or Safety

Explain requirements or impact on the health and safety of the public.
Response:

[This section to be scored by application evaluator.]

Evaluation (10 Points Maximum)

- Minimally improves Customer Service (0-3 points).
- Moderately improves Customer Service (4-6 points).
- Significantly improves Customer Service (7-10 points).



[This section to be scored by application evaluator.]

Evaluation (15 Points Maximum)

- Minimally directly impacts Iowa citizens (0-5 points).
- Moderately directly impacts Iowa citizens (6-10 points).
- Significantly directly impacts Iowa citizens (11-15 points).

F. Process Reengineering

Provide a pre-project or pre-expenditure (before implementation) description of the impacted system or process. Be sure to include the procedures used to administer the impacted system or process and how citizens interact with the current system.
Response:
Iowa Public Television currently broadcasts one signal from its Johnston headquarters to nine transmitters and eight translators across the State.

Provide a post-project or post-expenditure (after implementation) description of the impacted system or process. Be sure to include the procedures used to administer the impacted system or process and how citizens will interact with the proposed system. In particular, note if the project or expenditure makes use of information technology in reengineering traditional government processes.
Response:

Iowa Public Television will deliver either one high definition signal to its audience or four channels of programs. Prime-time broadcasts of high definition programs will have pictures so real the audience will feel part of them, presented in wide-screen format with concert hall sound clarity. Digital television will deliver four channels of programs instead of just one. This allows IPTV to then expand into four channels in the daytime -- simultaneously providing programs to meet the needs of preschoolers, seniors and lifelong learners - each on their own channel. Interactive learning tools will be delivered right to the television, giving unlimited educational opportunities and offering students a way to be actively engaged in content.

Television is entering a new era - a time when delivering specific programs and services to specific audiences will not only be possible, but necessary to meet their changing needs and interests. With the advent of digital television, this new way of broadcasting will dramatically change television programming in America.

IPTV is researching the possibility of centralized/streamline operations leveraging new technologies. Advances in computer processing, storage and fiber optics are allowing television stations to distribute programs more efficiently, for example, with "file transfers" that can send programs to stations like email attachments, or by storing programs in central digital repositories, where stations can download them as needed. Public televisions next generation interconnection system can be developed to take advantage of the new capabilities offered by the transition to digital technology and to exploit the efficiencies inherent in both real-time and non-real-time program file transfers - sharply reducing station costs for master control operations; for libriaries and storage; for traffic log creation; for production/editing, etc. Such a system has the potential to free up resources now being invested by each station in duplicative infrastrucutre and operations so that more money can be devoted to enhancing services delivered to the local community.

The digital television conversion will also result in significant improvement in the reliability of essential structures upon which IPTV must rely to fulfill its commitment of delivering dependable public television service to all of Iowas citizens. Construction of well-designed and ruggedly-constructed new towers will help to guarantee dependable public television service for decades to come, avoiding the constant jeopardy of relying upon antennas currently mounted on older deteriorating towers.

[This section to be scored by application evaluator.]

Evaluation (10 Points Maximum)

- Minimal use of information technology to reengineer government processes (0-3 points).
- Moderate use of information technology to reengineer government processes (4-6 points).
- Significant use of information technology to reengineer government processes (7-10).

[This section to be scored by application evaluator.]

Evaluation (5 Points Maximum)

- The timeline contains several problem areas (0-2 points)
- The timeline seems reasonable with few problem areas (3-4 points)
- The timeline seems reasonable with no problem areas (5)

H. Funding Requirements

On a fiscal year basis, enter the estimated cost by funding source: Be sure to include developmental costs and ongoing costs, such as those for hosting the site, maintenance, upgrades, ...

	FY05	FY06	FY07

	Cost($)	% Total Cost	Cost ($)	% Total Cost	Cost ($)	% Total Cost
State General Fund	$0	0%	$0	0%	$0	0%
Pooled Tech. Fund /IowAccess Fund	$18,000,000	100%	$0	0%	$0	0%
Federal Funds	$0	0%	$0	0%	$0	0%
Local Gov. Funds	$0	0%	$0	0%	$0	0%
Grant or Private Funds	$0	0%	$0	0%	$0	0%
Other Funds (Specify)	$0	0%	$0	0%	$0	0%
Total Project Cost	$18,000,000	100%	$0	100%	$0	100%
Non-Pooled Tech. Total	$0	0%	$0	0%	$0	0%

[This section to be scored by application evaluator.]

Evaluation (10 Points Maximum)

- The funding request contains questionable items (0-3 points)
- The funding request seems reasonable with few questionable items (4-6 points)
- The funding request seems reasonable with no problem areas (7-10)

I. Scope

Is this project the first part of a future, larger project?
☐ YES (If "YES", explain.) ☑ NO, it is a stand-alone project.
Explanation:

Is this project a continuation of a previously begun project?
☑ YES (If "YES", explain.)
Explanation:
This request is a continuation of our project to convert our facilities to digital. After the FCC mandated that all broadcasters convert to digital, IPTV started the groundwork for the transition to digital television. An engineering study was made at all eight transmitters that we owned at the time and a unique solution was identified for each of the eight transmitters across the state. Potential commercial partners were approached - in several parts of the state, it was IPTV who brought competitors in their market to the same table to discuss solutions to the digital conversion challenge.

IPTV started a DTV symposium as training for its staff. The symposium has become a 2 1/2 day training event open to all broadcast professionals, both technical and non-technical, associated with the transition to digital television. The nations top authorities on digital television are featured as key speakers and in panel discussions. Over 300 public and commercial broadcast professionals attend the event free of charge thanks to the sponsors of the symposium.

IPTV has received $20,400,000 from the State of Iowa, $1,488,818 from pooled technology funds, $3,486,127 federal funds and $1,035,000 from other funds.

By the end of calender year 2003, IPTV will have three digital channels activated with work progressing at several other transmitter sites. KDIN-DT in central Iowa is completed and will be followed by KSIN in Sioux City and KRIN in Waterloo. Public/private partnerships were created in all three locations. To prepare a site for digital broadcast, towers were purchased, leased or modified. Transmitters, antennas,

transmission lines and other RF components were designed, purchased and installed. Buildings for the transmitters and equipment were built or modified. Much of the tower work and antenna installation is done at 1,000 to 2,000 feet, where weather plays a critical factor. A channel in the Quad Cities has been obtained to ensure coverage in the Eastern part of the State of Iowa, where the digital signal from Iowa City will not be able to reach.

Work at other transmitter sites has begun as well - waiting only the availability of funds for completion.

J. Source of Funds

On a fiscal year basis, how much of the total project cost ($ amount and %) would be absorbed by your agency from non-Pooled Technology and/or IOWAccess funds? If desired, provide additional comment / response below.

Response:

Iowa Public Television has $18,000,000 remaining in its digital television conversion endeavor. IPTV is asking $18,000,000 from the pooled technology fund and/or the State of Iowa general fund. IPTV will continue to seek funds from the federal government through programs such as the U.S. Dept. of Commerces National Telecommunications Information Administrations Public Telecommunications Facilities Program.

[This section to be scored by application evaluator.]

Evaluation (5 Points Maximum)

- 0% (0 points)
- 1%-12% (1 point)
- 13%-25% (2 points)
- 25%-38% (3 points)
- 39%-50% (4 points)
- Over 50% (5 points)

Section II: Financial Analysis

A. Project Budget Table

It is necessary to estimate and assign a useful life figure to each cost identified in the project budget. Useful life is the amount of time that project related equipment, products, or services are utilized before they are updated or replaced. In general, the useful life of hardware is three (3) years and the useful life of software is four (4) years. Depending upon the nature of the expense, the useful life for other project costs will vary between one (1) and four (4) years. On an exception basis, the useful life of individual project elements or the project as a whole may exceed four (4) years. Additionally, the ROI calculation must include all new annual ongoing costs that are project related.

The Total Annual Prorated Cost (State Share) will be calculated based on the following equation:

$$\left[\left(\frac{Budget\ Amount}{Useful\ Life}\right) \times \%\ State\ Share\right] + (Annual\ Ongoing\ Cost \times \%\ State\ Share) = Annual\ Prorated\ Cost$$

Budget Line Items	Budget Amount (1st Year Cost)	Useful Life (Years)	% State Share	Annual Ongoing Cost (After 1st Year)	% State Share	Annual Prorated Cost
Agency Staff	$0	1	0.00%	$0	0.00%	$0
Software	$0	4	0.00%	$0	0.00%	$0
Hardware	$0	3	0.00%	$0	0.00%	$0
Training	$0	4	0.00%	$0	0.00%	$0
Facilities	$0	1	0.00%	$0	0.00%	$0
Professional Services	$0	4	0.00%	$0	0.00%	$0
ITD Services	$0	4	0.00%	$0	0.00%	$0
Supplies, Maint, etc.	$0	1	0.00%	$400,000	100.00%	$400,000
Other	$18,000,000	15	100.00%	$0	0.00%	$1,200,000
Totals	$18,000,000	---	---	$400,000	---	$1,600,000

C. Tangible and/or Intangible Benefits

Respond to the following and transfer data to the ROI Financial Worksheet as necessary:

1. Annual Pre-Project Cost - This section should be completed only if state government operations costs are expected to be reduced as a result of project implementation. **Quantify actual state government direct and indirect costs** (personnel, support, equipment, etc.) associated with the activity, system or process prior to project implementation.
Describe Annual Pre-Project Cost:

Quantify Annual Pre-Project Cost:

	State Total
FTE Cost (salary plus benefits):	$0.00
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	$0.00
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	$0.00
Total Annual Pre-Project Cost:	$0.00

2. Annual Post-Project Cost - This section should be completed only if state government operations costs are expected to be reduced as a result of project implementation. **Quantify actual state government direct and indirect costs** (personnel, support, equipment, etc.) associated with the activity, system or process after project implementation.
Describe Annual Post-Project Cost:

Quantify Annual Post-Project Cost:

	State Total
FTE Cost (salary plus benefits):	$0.00
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	$0.00
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	$0.00
Total Annual Post-Project Cost:	$0.00

3. Citizen Benefit - Quantify the estimated annual value of the project to Iowa citizens. This includes the "hard cost" value of avoiding expenses ("hidden taxes") related to conducting business with State government. These expenses may be of a personal or business nature. They could be related to transportation, the time expended on or waiting for the manual processing of governmental paperwork such as licenses or applications, taking time off work, mailing, or other similar expenses. As a "rule of thumb," use a value of $10 per hour for citizen time.

Describe savings justification:

Transaction Savings

Number of annual online transactions:	0
Hours saved/transaction:	0
Number of Citizens affected:	0
Value of Citizen Hour	0
Total Transaction Savings:	$0
Other Savings (Describe)	$0
Total Savings:	$0

4. Opportunity Value/Risk or Loss avoidance - Quantify the estimated annual non-operations benefit to State government. This could include such items as qualifying for additional matching funds, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, avoiding the consequences of not complying with State or Federal laws, providing enhanced services, avoiding the consequences of not complying with enterprise technology standards, etc.

Response:
Iowa Public Television did not meet the FCC deadline of May, 2003 for its nine transmitters. It has received six-month extensions for all nine transmitters. Three of the transmitters should be completed by the end of the six-month extension. At that time, if Iowa Public Television is unable to show progress on each of the remaining six transmitters, IPTV risks losing the digital licenses for the transmitters which are not on-air. If that were to happen, once the simulcast period is over, IPTV would be unable to transmit any signal in the areas where the digital licenses were lost. This would place at risk the benefit the citizens of the State of Iowa receive from the services provided by IPTV. Through their contributions, viewers and supporters tell us they value the services they receive. In FY 2002 alone, the Iowa Public Television Foundation raised $7,730.746

If IPTV does not maintain full service we would risk losing matching funds with the Corporation for Public Broadcasting Community Service Grant ($1,642,170), CPB/PBS digital television matching funds ($800,000) and NTIA federal funds in a match ($2,966,819). Without available digital television funding to us now, we are losing opportunities to work with local commercial broadcasters at the various transmitter sites across the state. Estimated savings potentially lost in the Mason City project is $2,500,000. Absent our service, IPTV would not have received a U.S. Dept of Education grant of $3,000,000 or a Carver grant

of $688,000.

For many of our viewers, our service is priceless and a dollar amount can not be placed on the value of these services. For the purposes of calculating a ROI, we have estimated a value of some of the services most used by our viewers and constituents. The value of our prime time programming in the Des Moines/Ames market only, based upon the commercial world business model is $10,347,750. For a valuation of IPTVs prime-time programming services state-wide, we would need to research the amount the commercial stations charge in IPTVs remaining seven markets. IPTV is the most efficient distribution system for educational video for schools in the State of Iowa. Estimated yearly savings in distribution costs is $580,500. The cost benefit analysis of our Ready to Learn services comes to $1,680,000. The market value of the technical assistance provided to K-12 schools is $291,000. The savings to schools as a result of real time field trips for FY 2002 as reported to the Iowa Legislature is $2,275,341.

5. Benefits Not Readily Quantifiable - List and summarize the overall non-quantifiable benefits (i.e., IT innovation, unique system application, utilization of new technology, hidden taxes, improving the quality of life, reducing the government hassle factor, meeting a strategic goal, etc.).
Response:

Since it began, Iowa Public Television has been what public television is supposed to be - the place with which weve turned for educational, enlightening and entertaining programs free of political influence or commercial consideration. Every day it opens a window to our world. It offers each of us - regardless of where we live or what we can afford to pay - a chance to learn from the lives of others. It is our neighbor, our teacher, our friend.

At Iowa Public Television, we THINK KIDS! We always have. We take our responsibilities seriously because we know that, next to parents, television programs are a childs most influential teacher. Our extensive childrens programming services underscore our commitment to the future and to those who will take us there. Our childrens programs focus on goals and values, not guns and violence. And kids love what we do. Over 240,000 watch us every week. Barney and Big Bird and Arthur and Clifford are more than childrens companions, they are members of their families and partners in their creative quests. In so many ways, we are a critical educational enterprise - an educational powerhouse of video and online resources, interactive media, videoconferencing, distance learning, and staff development opportunities for learners of all ages.

The level of our commitment mirrors the reach of the signals from our nine transmitters. Iowa Public Television is statewide in fact, not just in name. Our programs reflect Iowa issues and respond to Iowa needs. A million people watch Iowa Public Television each week, viewing programs they cannot find anywhere else. We make programs that matter - about our state, its people, about what it means to be an Iowan living in todays times or yesterdays.

Perhaps it is because we serve people - not deliver audiences to advertisers - that IPTV holds such a special place in the lives of many Iowans. And because our programs do serve people, our programs can often make a difference in their lives. One of many is Joel Windsor of Waterloo. When he was 15, he was in an auto accident, in a coma for two-and-a-half months, and his doctors said hed never read or write again. Surely his doctors had never met Big Bird or Fred Rogers. Joel watched Sesame Street, learned his ABCs and how to count. Mister Rogers taught him social skills. Joel graduated from Marshalltown High School and attended Iowa Lakes Community College.

Clearly, our programs do make a difference. They do what E.B. White challenged them to do thirty years ago at their birth. They address themselves to excellence, not acceptability. Thats why so many Iowans have supported us from the start, when we were just an idea, with a single transmitter, our studioes on the back stage of central Iowas technical high school, with only a handful of volunteers to help. Today our statewide broadcast schedule originates from state-of-the-art television facilities - the result of continued support from the state and federal governments, corporations, foundations, Iowas business, industry,

trade unions and groups and over 70,000 volunteer members of the Iowa Public Television Foundation.

Soon, Iowa Public Television will have an opportunity to serve even more: to provide special new program channels aimed at meeting the unique needs of all Iowans; to create interactive educational initiatives for use in schools throughout our state; to broadcast programs with movie-theater-quality pictures and sound. All of that, and more, will happen with the advent of digital television - a new way of broadcasting that will dramatically change television programming in America and provide expanded opportunities for anyone who views it. This change will be even more dramatic than when the movies added sound or when radio added pictures.

Imagine this:
Four channels of public television programming where there is only one. All coming into your home simultaneously over the airwaves, the same way that one channel does now. No need for special cables or satellite dishes. This is free, over-the-air broadcasting, available to everyone.

Pictures so real youll feel a part of them, presented in wide-screen on your television set; sound with concert hall clarity, in Dolby stereo surround.

Interactive teaching tools right on your television set, giving you unlimited learning opportunities in your home and at your business, available at your convenience, whenever you want to take advantage of them.

Thats the world of digital television.

Throughout the day, well be using the big bandwidth of the digital television signal to transmit data and interactive educational applications. This material will reflect the ever-growing need to provide students with the ability to learn whats important in ways in which they can best understand it. Research shows us that learning happens when students minds are actively engaged in the content. These tools will also provide lifelong learning opportunities to support Iowas workforce in maintaining a competitive and vital economic environment in our state.

This digital television environment brings with it unparalleled opportunities - and unparalleled challenges. Iowa Public Television embraces both, fully prepared to meet the challenges and provide the opportunities. Thats what we have always done. Thats what Iowans do. Iowa Public Television, after all, is about Iowa.

And if we dont do it - and do it together - who will?

ROI Financial Worksheet	
A. Total Annual Pre-Project cost (State Share from Section II C1):	$0
B. Total Annual Post-Project cost (State Share from Section II C2):	$0
State Government Benefit (= A-B):	$0
Annual Benefit Summary:	$0
State Government Benefit:	$0
Citizen Benefit:	$0
Opportunity Value or Risk/Loss Avoidance Benefit:	$34,502,326
C. Total Annual Project Benefit:	$34,502,326
D. Annual Prorated Cost (From Budget Table):	$1,600,000
Benefit / Cost Ratio: (C/D) =	21.56
Return On Investment (ROI): ((C-D) / Requested Project Funds) * 100 =	182.79%

[This section to be scored by application evaluator.]

Evaluation (25 Points Maximum)

- The financial analysis contains several questionable entries and provides minimal financial benefit to citizens (0-8 points).
- The financial analysis seems reasonable with few questionable entries and provides a moderate financial benefit to citizens (9-16 points).
- The financial analysis seems reasonable with no problem areas and provides maximum financial benefit to citizens (17-25).

Note: For projects where no State Government Benefit, Citizen Benefit, or Opportunity Value or Risk/Loss Avoidance Benefit is created due to the nature of the project, the Benefit/Cost Ratio and Return on Investment values are set to Zero.

Appendix A. Auditable Outcome Measures

For each of the following categories, list the auditable metrics for success after implementation and identify how they will be measured.

1. Improved customer service

IPTV will design and execute a plan for conversion to digital broadcast format in compliance with FCC requirements. The plan will result in digital television service to all Iowans. The result can be measured by the percentage of Iowans in the State which can receive a digital broadcast signal.

2. Citizen impact

Expansion of Services: IPTV will make maximum use of expanded broadcast capability resulting from the conversion to the digital format. Plans will be developed to use the simultaneous, multiple-channel broadcast capabilities of the digital format to broaden program offerings and thereby better meet the educational needs of Iowans. Already the states largest provider of information and entertainment programming about Iowa, IPTVs role will grow greater with the expansion of services. Programming will be made available to PBS and help educate America about Iowa.

Programming Enhancements: Specifically, consideration will be given to development of expanded broadcast services focusing on the needs of seniors and a special channel providing programming for young children, both groups whose needs often go unmet elsewhere. In addition, IPTV will expand its already considerable commitment to public affairs programming, with special public affairs channels providing Iowans additional information about their governments.

Interactive Programs: IPTV will develop or obtain interactive programs to fully realize the benefits of the digital format. These programs will be made available to schools and colleges, not for profit organizations and associations, and the general population of the state.

Measurements:
Expanded program offerings using the simultaneous, multiple-channel broadcast capabilities of the digital format,
Enhanced programs to underserved segments of Iowas population, and
Interactive programs offered, either developed in house or obtained, to schools and colleges.

3. Cost Savings

The tower construction portion of this project application demonstrates the cost-effectiveness of collaboration among public broadcasting and commercial stations, and between public radio and television licensees, helping to assure maximum economy and efficiency that benefits all stations alike. For example, by sharing with a commercial broadcaster the cost of building a tower at Mason City, IPTV will save half the expense of design and construction - enabling the state network to broadcast from a new 2,000-foot tower at a cost of less than $2 million. This partnership with a commercial television station makes it essential for IPTV to keep pace with our potential partners construction timeline so that this promising collaboration with the private sector proceeds at a brisk rate.

By implementing the proposed project, IPTV will construct the towers it requires to guarantee dependable public television service for decades to come. Ownership by the state network will avoid years of rental payments as a tenant on towers owned by other entities, while creating a modest continuing revenue stream for IPTV from rental of tower space to other stations. Another example of cost savings is avoiding the need to paint older non-galvanized towers repeatedly. By constructing its own towers, IPTV avoids cost-prohibitive attempts to upgrade existing older towers - efforts that would be neither efficient nor economical, resulting in only a few more years of service from towers that are marginally acceptable at best today.
Datacasting will become an efficient and effective way to quickly send educational contenet to schools.

Once the simulcasting period is over, IPTV will have reduced utility expenditures.

4. Project reengineering

Project reengineering shall be measured by the quality of broadcast signals being sent and by the number of broadcast signals being sent. Rather than having one analog signal broadcast across nine transmitters and eight translators, there will either be one high definition signal to the audience or four channels of programs.

5. Source of funds (Budget %)

6. Tangible/Intangible benefits

Return